### **System Overview**

The system is designed to facilitate efficient management of inventory, orders, shipments, and user accounts within an organization. It provides streamlined workflows for handling products from suppliers through inventory and shipping stages, as well as comprehensive administrative control over users and resources. This system is suitable for environments where products are received from suppliers, managed within inventory, and shipped to customers or other locations.

### **User Roles**

1. User:
   * Regular users handle daily operational tasks, including managing suppliers, creating and processing orders, and preparing shipments. They can:
     + Create and manage suppliers and stores.
     + Add new supplier products and update existing product details.
     + Add incoming orders, receive them in the inventory, and modify or delete incoming orders as needed.
     + Manage inventory by updating product details, removing obsolete items, and tracking available stock.
     + Prepare shipments by selecting products from inventory, updating quantities or details of items to be shipped, and removing items before finalizing a shipment.
     + Complete shipments by marking prepared items as delivered, effectively moving them out of the active inventory and updating inventory levels.
2. Admin:
   * Admin users have the same capabilities as regular users but with added permissions to manage user accounts. Admins can:
     + View all user accounts in the system, providing them oversight of all users' roles and permissions.
     + Create new users, assigning roles and initial login credentials.
     + Edit user details, update roles, or modify access permissions to align with organizational requirements.
     + Delete users who no longer need access to the system, ensuring controlled access and maintaining system security.

### **Functional Workflows**

1. Supplier Management:
   * Users can add suppliers to the system, specifying supplier details such as name, nickname, and location.
   * Each supplier can be associated with multiple products, which users manage within the supplier product catalog.
2. Product Management:
   * Supplier products are listed with details including product name, description, and price, allowing users to maintain an organized catalog.
   * Users can modify product details or delete products as needed, ensuring the catalog remains accurate and up-to-date.
3. Order Processing:
   * Incoming orders are created when products are expected from suppliers. Users enter order details, such as products ordered, quantities, and pricing.
   * Once an order is received, users can mark it as received, which transfers the items from the incoming order to the main inventory. This updates inventory quantities and makes products available for further use or shipment.
   * Users can edit or delete incoming orders before they are marked as received to accommodate order changes or cancellations.
4. Inventory Management:
   * Inventory reflects all available products after they’ve been received from incoming orders. Users can adjust product details, quantities, or pricing within the inventory.
   * Items can be deleted from inventory if they’re no longer available or relevant, maintaining a clean and accurate stock record.
5. Shipping Management:
   * When preparing a product for shipment, users select items from inventory and move them to the Shipment Orders section, where they specify shipment details, quantities, and any adjustments needed. This transition marks the product as ready for shipment while retaining its record in inventory for future tracking.
   * Products in the Shipment Orders section can be edited or removed before finalizing the shipment, providing flexibility for last-minute changes.
   * Once a shipment is confirmed as "Delivered," the products are removed from the Shipment Orders section but remain in inventory, preserving the inventory record even as they exit the active queue.
6. User Management (Admin-Only):
   * Admins can view a full list of system users, providing an overview of all active accounts.
   * User creation allows admins to add new employees or team members, assigning roles based on their responsibilities.
   * Edit functionality enables updates to user information, role changes, or adjustments to user permissions.
   * Admins can delete user accounts, ensuring only current, authorized personnel have system access.

### Summary

This system combines detailed product and supplier tracking, a streamlined inventory and order workflow, and robust user management. Managing products from incoming orders to shipping, it allows for precise tracking of inventory status. With layered access for admins and users, the system ensures data integrity and controlled access, making it ideal for businesses focused on inventory, order, and shipping management.